

Patent Abstracts of Japan

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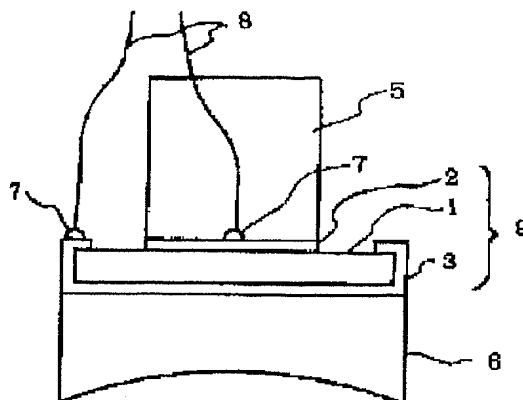
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TITLE : ULTRASONIC PROBE



ABSTRACT : PURPOSE: To stabilize and retain a high performance by reducing an upper electrode as compared with the diameter of a piezoelectric transducer, increasing a lower electrode as compared with the diameter of the transducer and folding back the side surface edge part to an upper electrode side, and then sealing a lead wire to the fold-back part and the upper electrode.

CONSTITUTION: An upper electrode 2 is formed concentrically at the center of a circular piezoelectric transducer 1, a lower electrode 3 covers the lower surface and all side surfaces of the transducer 1 and then covers an upper- surface circumferential part concentrically, and a bonding pad for a conductor is formed at the upper-surface edge part of the transducer 1. Then, the upper edge surface of an acoustic lens 6 is bonded to the lower surface of the electrode 3, a lead wire 8 is connected to the surfaces of the electrodes 2 and 3 with a conductive adhesive, and a damper material 5 is filled and hardened onto the electrode 2 using a tool. With this configuration, ultrasonic waves are excited and received only at a region directly below the electrode 2, thus preventing an unneeded high harmonic oscillation from being excited.

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